

REMARKS

Claims 1-9 are currently pending in the patent application. The Examiner has newly rejected Claims 1 and 6 under 35 USC 103 as unpatentable over Kase in view of Karr; and has newly rejected Claims 3-5, 8 and 9 as unpatentable over Kase and Karr in further view of Ho. For the reasons set forth below, Applicants believe that Claims 1, 3-6, and 8-9 are allowable over the cited art.

The present invention provides a novel apparatus and method for managing mobile agents wherein agent servers maintain not only the history of movements of mobile agents at their locations but also keep a count of the accumulated total of movements by each of the mobile servers for which the agent servers have a history. In addition, the agent servers generate requests for updating registration server locations and periodically communicate the requests to the registration server, wherein the requests include the history of movements with the accumulated counts. At the registration server, tables are updated for any given mobile agent using only the information that is accompanied by the highest count of accumulated movements, thereby avoiding updating with stale information. Applicants respectfully

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assert that the cited art does not teach or suggest the invention as claimed.

The Examiner has cited the Kase patent as teachings a mobile agent management apparatus that maintains location information of mobile agents, citing Col. 19, lines 5-62. The Kase patent is directed to an agent system, defined by Kase as "one that performs processing such as information collections while moving on nodes configuring the network" (see: Col. 1, lines 22-24). Due to reliability concerns within a network, whereby "an area conceiving an evil intention may falsify the agent coming thereto and equip it with a harmful function such as a computer virus, and may substitute the agent for a harmful agent" (Col. 19, lines 31-34), the Kase patent sequentially records the area to which an agent moves in a history which is stored in a reliability list storing section (Col. 19, lines 8-11). Then each area decides whether to accept an agent based on the history of areas where the agent has been and the reliability of those listed areas (Col. 19, lines 11-14).

Applicants respectfully assert that the Kase patent does not teach the claimed steps and means for maintaining a history of movement of each of the mobile agents including a counter for accumulating a count of the accumulated number

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of movements for each mobile agent. While Kase saves location information in the history, Kase does not teach or suggest the use of a counter for accumulating a count of the accumulated number of movements for each mobile agent.

Further, as acknowledged by the Examiner, the Kase patent does not teach the claimed request means or steps for requesting location update information. The Examiner has cited the Karr patent publication Abstract stating that Karr "teaches the requesting of location information in a mobile agent." What the Karr Abstract states is that the system "uses a plurality of MS locating technologies, including those based on (1) two-way TOA and TDOA (*which represented "time-of-arrival" and "time-differential-of-arrival"*); (1) pattern recognition; (3) distributed antenna provisioning; and (4) supplemental information from various types of very low cost non-infrastructure base stations". Karr does not teach requesting location information or location update information. Rather, Karr focuses on obtaining location information using signal fingerprinting and other technologies that do not rely on an express request for information from a registration server. Applicants believe that Karr effectively teaches away from the claimed request means and steps for generating update requests.

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Applicants respectfully assert that the Examiner has not established a *prima facie* case of obviousness against the claim language. To establish a *prima facie* case of obviousness, the cited art must teach or reasonably suggest each of the claim features, as well as provide motivation to combine the teachings. Since neither Kase nor Karr teaches means or steps for maintaining a history of movements which includes a counter for accumulating a count of the accumulated number of movements for each mobile agent, and since neither reference teaches steps or means for periodically generating requests for updating location information, it cannot be maintained that the combination of references obviates the invention as claimed. Moreover, no motivation to modify the Kase system with its history of areas and reliability lists with the teachings of the Karr patent publication. Moreover, even if one did modify Kase with Karr, one would not arrive at the claimed invention since Karr teaches methods of locating devices without express requests for location information. Clearly, therefore, the combination of teachings does not obviate the invention as claimed in Claims 1 and 6.

With regard to Claims 3-4 and 8-9, the Examiner has cited the Ho patent teachings in combination with the Kase

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and Karr teachings. Applicants rely on the arguments presented above with respect to the Kase and Karr teachings. The Ho patent is cited for teachings a "movement threshold measurement" (Col. 5, lines 53-Col. 6, line 49). The Ho patent system tracks the movements of a mobile station to determine where the mobile station is in relation to places it can call (its paging area). Ho provides a movement counter MC for a mobile station; however, the MC does not record an absolute count of accumulated movements. For example, since a mobile station may perform so-called "loops", some of the movement path will actually be removed from the reporting (see: Col. 5, lines 21-41). Movement is tracked relative to cell locations/boundaries in the network and is not an accumulated count. Ho uses an "adaptive" movement counter and dynamic movement thresholds to track where the mobile station is, relative to other location, while it is moving. As expressly taught by Ho in Col. 6, at lines 31-34, the "values of movement counter MC and call counter CC at mobile station 300 are reset every time a location update is performed" and the system may "return a new movement threshold" (Col. 6, lines 12-14). Accordingly, Applicants contend that the Ho patent does not teach or suggest a counter for maintaining an accumulated number of

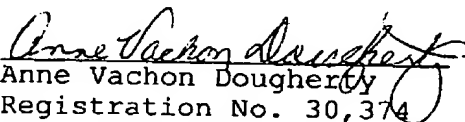
movements, since Ho changes the count based on loops, etc. Further, Ho does not teach or suggest comparing the count to a predetermined threshold (Claims 3 and 8), since Ho changes the movement threshold. Finally, Ho does not teach or suggest generating a request for updating location information based on a comparison to a predetermined threshold or renewing location information based on updates (Claims 4, 5 and 9). Accordingly, Applicants again conclude that a *prima facie* case of obviousness has not been established.

Based on the foregoing amendments and remarks, Applicants respectfully request entry of the amendments, reconsideration of the amended claim language in light of the remarks, withdrawal of the rejections, and allowance of the claims.

Respectfully submitted,

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